

DETAILED ACTION

Continued Examination Under 37 CFR 1 .1 14

1) A request for continued examination under 37 CFR 1 .1 14, including the fee set forth in 37 CFR 1 .17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1 .1 14, and the fee set forth in 37 CFR 1 .17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/23/10 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 2) Claims 23, 25, 28-29, and 32-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 2004-63504 A.

JP '504 A teaches a chemical vapor deposition process for producing semiconductor devices for forming amorphous film on a substrate, and irradiating the film multiple times to control the crystalline thickness and distribution of the film using a laser. The power of the laser can be altered and controlled to change the crystalline film's morphology. JP '504 using a control system while the amorphous film and production of a crystal film is completed by an annealing treatment, based on a degree of crystallinity obtained.

The difference being that JP '504 does not exactly teach a method for producing a semiconductor device wherein a spectroscopy is performed at a measurement wavelength of about 700 nm to 800 nm, a laser power of about 5mJ or about 10 mJ lower than an optimum laser power value. However, in the absence of unobvious results, it would have been obvious to the skilled artisan at the time of the present invention to modify and optimize the process parameter limitation in order to ensure proper orientation. Furthermore it would be obvious to one having ordinary skill in the art to recognize that the laser power inspecting/extracting is utilized to scan and understand the morphology of the substrate surface as

disclosed in the teachings, and as well supported by applicant's remarks. Thus the ability to also include and at least minimally understand the detection of abnormalities in the surface as well.

Expected beneficial results are evidence of obviousness, just as unexpected beneficial results are evidence of unobviousness. In re Novak 16 USPQ 2d 2041 (Fed. Cir., BPAI 1989); In re Hoffman 194 USPQ 126 (CCPA 1977); In re Skoll 187 USPQ 481 (CCPA 1975); In re Skoner 186 USPQ 80 (CCPA 1975); In re Garshon 152 USPQ 602 (CCPA 1967).

Response to Arguments

3) Applicant's arguments filed 3/23/10 have been fully considered but they are not persuasive. Upon review of the submitted remarks and amended claim set. It is the examiner's position that the art cited is still appropriate for the given rejection. Examiner points out that the rejection is a USC 103 (a) rejection whereas the remarks are attributed in a 102 format.

Furthermore Applicant's do not dispute the teachings of '504 with respect to the claimed invention, with exception to the explicit teaching capability of the laser power inspecting/extracting component of the claimed invention. Sections 0032-0038 of the machine translation do denote the purpose of the laser to determine the morphology and concentration values in the surface of the film, thus precluding to

the ability to detect abnormalities in the surface. That device function would be capable of such an endeavor. The ability to do so would be allow for ensuring better quality control standards and parameter optimization of the thin film growth on the semiconductor substrate.

Applicant's do not provide evidence as to why this is the contrary in the sense of an obvious aspect of the claimed invention. Thus examiner is maintaining the said rejection at this time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. NAGESH RAO whose telephone number is (571)272-2946. The examiner can normally be reached on 8:30AM-5PM (INDEPENDENT FLEX SCHEDULE).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael KORNAKOV can be reached on (571)272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. Nagesh Rao/
GAU 1714